

CLAIMS

1. A communication system between a mobile phone and a PABX, characterized in that it allows any programmable mobile phone to connect and communicate as a PABX extension, making and receiving phone calls, as well as accessing all services of the referred PABX, as an internal extension of the referred PABX, with the referred PABX communicating with the referred mobile phone directly through the mobile network, the communication's transmission line between the referred mobile phone and the referred PABX is established by accessing mobile networks and without needing to access fixed networks of the following type: PSTN, ISDN, IP or direct lines.
2. System according to claim 1, characterized in that the communication's transmission line between a mobile phone and a PABX is a cellular oriented communication like GSM, UMTS, TDMA, CDMA, AMPS, NAMPS, ETACS and others.
3. System according to claim 1, characterized in that the communication's transmission line between a mobile phone and a PABX is a satellite communication.
4. System according to claim 1, characterized in that the communication's transmission line between a mobile phone and a PABX is a radio communication, trunking, UHF, VHF and other frequencies allowed by each country's law.
5. System according to the previous claims 1 to 4, characterized in that it allows transferring calls received by PABX either from fixed or from mobile telephone networks.
6. System according to claims 1 to 4, characterized in that it allows the transfer of phone calls made from PABX either from fixed or from mobile telephone networks.

7. System according to the previous claims, characterized in that it allows the mobile phone to have also access to PABX authorized services.

5 8. System according to the previous claims, characterized in that it comprises a PABX, a programmable mobile phone compatible with the PABX installed transmitter and a transmission line also compatible with the PABX installed transmitter.

10 9. System according to claim 8, characterized in that the PABX has fixed and mobile network circuits and fixed and mobile extension circuits.

15 10. System according to claim 8, characterized in that the PABX has one or more transmitters as GSM, UMTS, TDMA, CDMA, AMPS, NAMPS, ETACS, or a transmission by satellite, or a different frequency transmitters according to the country's law at the moment of communication.

11. System according to claim 8, characterized in that the mobile phone is compatible with the PABX installed transmitter, as GSM, UMTS, TDMA, CDMA, AMPS, NAMPS, ETACS, or a transmission by satellite, or other, according to the PABX installed system.

20 12. System according to claim 8, characterized in that the transmission line is compatible with the PABX installed transmitter, thus, comprising a GSM, UMTS, TDMA, CDMA, AMPS, NAMPS or ETACS transmitter or a satellite transmitter, or others, according to the PABX installed system.

25 13. System according to claim 10, characterized in that the PABX comprises detection circuits to identify the mobile phone after the communication establishment.

30 14. System according to claim 13, characterized in that the mentioned identification is made by a code sent through the mobile phone.

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15. System according to claim 13, characterized in that the mentioned identification is done automatically.
16. System according to claims 10 to 15, characterized in that it allows the referenced mobile phone to be recognized by more than 5 one PABX.
17. System according to claim 10, characterized in that the PABX comprises a central processing unit, CPU, which has a system functions developed software, namely answering, making and transferring phone calls, and detecting, identifying and 10 integrating mobile phones.
18. PABX, which comprises the system according with to any of the previous claims.
19. PABX according to claim 18, characterized in that its installed reversible package is able, at any time of work, by CPU orders, to 15 switch the network function with extension.
20. Software integrated in the PABX CPU according to claim 18, characterized in that it allows the system function development, namely answering, making and transferring phone calls, and detecting, identifying and integrating mobile phones.
- 20 21. Software according to claim 20, characterized in that it allows to control the mobile phone identification through system detectors and after making that identification, to charge that mobile phone with an extension number which corresponds to the mobile phone identification in the CPU memory.
- 25 22. Software according to claims 20 to 21, characterized in that it is capable to order a PABX reversible package so that the communication channel which is being used by the mobile phone, switch from network to extension.

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23. Software according to claims 20 to 22, characterized in that it is capable to program vary logical extension number according to the existent mobile phone numbers.

24. Software according to claims 20 to 23, characterized in that it
5 is capable to charge, bound PABX accesses or services to mobile phone extensions as PABX proceeds with fixed extensions.

25. Software integrated in the PABX CPU according to claims 20 to 24, characterized in that the function procedure of answering, making and transferring phone calls from PABX to a mobile phone, is
10 done as described in the attached Figures.